

IN THE CLAIMS:

Claims 1 – 28 (Cancelled).

29. (Currently amended) A method as in claim ~~[[28]]~~ 30, wherein the spinning surface of the charged electrode is a cylinder.

30. (Currently amended) A high capacity spinning method of producing nanofibres from a conductive polymer solution using electrostatic spinning in an electric field created by a potential difference in the space between a charged electrode and a counter electrode as in claim 28, the method comprising:

providing a device for nanofibres storage, the device having a planar surface moving in a first direction;

rotating the charged electrode having a body elongated in a direction of the rotational axis of the charged electrode, which rotational axis is perpendicular to the movement direction of the planar surface of the device for nanofibres storage and is parallel to the plane of this device for nanofibres storage;

using a part of the circumference of the charged electrode near to the counter electrode as a spinning surface from which the nanofibres are formed from the conductive polymer solution by the action of the electric field;

drifting the formed nanofibres toward the counter electrode;

wherein an air stream acts on nanofibres moving in the space between the charged electrode and the counter electrode, which air stream is directed to promote drifting of the nanofibres away from the charged electrode; and

collecting nanofibres in a layer on the planar surface of the device for nanofibres storage.

31. (Previously presented) A method as in claim 30, wherein the nanofibres are by an air stream drift away towards the counter electrode before which they lay down onto the device for nanofibres storage and form a layer on it.

32. (Previously presented) A method as in claim 30, wherein the air stream is produced by sucking the air from the space between the electrodes into the space behind the counter electrode.

33. (Previously presented) A method as in claim 30, wherein the nanofibres are by the air stream deflected from their course towards the counter electrode and are led to the device for nanofibres storage pervious to air, onto which surface they are stored in a layer in a space out of reach of the electric field between the electrodes where they were produced.

34. (Previously presented) A method as in claim 33, wherein the air stream is produced by sucking of the air from the space between the electrodes into the space behind the device for nanofibres storage pervious to air.

35. (Previously presented) A method as in claim 30, wherein auxiliary drying air is supplied into the space between the charged electrode and the counter electrode.

36. (Previously presented) A method as in claim 35, wherein at least a part of the auxiliary drying air is drawn off the space in front of the device for nanofibres storage pervious to air without passing through the device for nanofibres storage.

37. (Previously presented) A method as in claim 30, wherein auxiliary drying air is heated before being supplied into the space between the charged electrode and the counter electrode.

38. (Currently amended) An electrostatic spinning device for nanofibres production from a polymer solution, comprising:

- a container for the polymer solution;
- a rotatable charged electrode that is rotatable about a rotational axis, said charged electrode having a body that is elongated in the direction of said rotational axis, said charged electrode being disposed so that during rotation of the charged electrode a first portion of said charged electrode is disposed in said container while a second portion of said charged electrode is disposed out of said container;
- a counter electrode disposed opposite said second portion of said charged electrode so as to create therebetween an electric field created by a potential difference between the second portion of said charged electrode and the counter electrode; [[and]]
- a device for nanofibres storage, said device for nanofibres storage being movable in a direction that is perpendicular to the direction of the axis of rotation of said charged electrode; and
- a vacuum source disposed in the space behind the device for nanofibres storage in regard to the charged electrode and serving to create an air stream directing out of the space between the electrodes and towards the device for nanofibres storage, and wherein the device for nanofibres storage is pervious to air.

39. (Previously presented) A device as in claim 38, wherein the charged electrode is a cylinder.

40. (Previously presented) A device as in claim 39, wherein lugs and/or recesses are defined on the surface of the cylinder of the charged electrode.

41. (Previously presented) A device as in claim 38, wherein the charged electrode is a prism.

42. (Previously presented) A device as in claim 38, wherein the counter electrode is configured to surround the entire length of the second portion of the charged electrode.

43. (Canceled).

44. (Previously presented) A device as in claim 38, wherein said device for nanofibres storage is pervious to air and disposed between said second portion of said charged electrode and said counter electrode.

45. (Previously presented) A device as in claim 38, further comprising:  
a vacuum source disposed in the space behind the device for nanofibres storage in regard to the charged electrode and serving to create an air stream directing out of the space between the electrodes and towards the device for nanofibres storage; and  
wherein said device for nanofibres storage is pervious to air and disposed outside of the space between the electrodes.

46. (Currently amended) A device as in claim ~~[[43]]~~ 38, wherein the device for nanofibres storage is composed of a conveyor pervious to air.

47. (Currently amended) A device as in claim ~~[[43]]~~ 38, wherein the device for nanofibres storage is composed of a plane supporting material of the nanofibres.

48. (Previously presented) A device as in claim 47, wherein the plane supporting material is positioned on a conveyance.

49. (Previously presented) A device as in claim 48, wherein the conveyance is composed of a counter electrode.

50. (Previously presented) A device as in claim 48, wherein the conveyance is composed of stretching elements of plane supporting material of the nanofibres.

51. (Currently amended) A device as in claim ~~[[43]]~~ 38, further comprising:  
an air inlet configured and disposed to direct auxiliary drying air into the space between the electrodes.

52. (Previously presented) A device as in claim 51, further comprising:  
an air heating device positioned in the air inlet for auxiliary drying air.

53. (Previously presented) A device as in claim 51, wherein said air inlet is configured and disposed to direct auxiliary drying air into the space between the electrodes such that at least a part of the drying air is drawn off the space in front of the device for nanofibres storage in regard of the charged electrode, without passing through the device for nanofibres storage.